

# ASTERACEAE FROM WOOL MILL SITES IN SOUTH CAROLINA, INCLUDING NEW RECORDS FOR NORTH AMERICA

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## ABSTRACT

Documentation is given for 73 taxa of Asteraceae collected in 1957–1960 from wool mill sites in Berkeley County and Florence County, South Carolina. Twenty-eight (28) of these taxa are first reports for the flora of South Carolina; seventeen (17) others represent the first documentation for earlier reports for the state. Six (6) are first reports for North America: *Chevreulia sarmentosa*, *Gamochaeta argentina*, and *Panphalea heterophylla* (native to South America), and *Peripleura arida*, *Stuartina hamata*, and *Vittadinia sulcata* (native to Australia). *Calotis cuneifolia* (native to Australia) is reported for North America for the second time. Fifty-nine (59) of the 73 taxa are not native to South Carolina; of these, 29 are native to continents other than North America, while 30 are native to North America but from regions outside of the state.

## RESUMEN

Se ofrece documentación de 73 taxa de Asteraceae colectados en el intervalo 1957–1960 en los condados de Berkeley y Florence County, Carolina del Sur. Veintiocho (28) de estos taxa son primeras citas para la flora de Carolina del Sur; otros diez y siete (17) representan los primeros testigos para citas previas en el estado. Seis (6) son primeras citas para Norte América: *Chevreulia sarmentosa*, *Gamochaeta argentina*, and *Panphalea heterophylla* (nativa de Sur América), y *Peripleura arida*, *Stuartina hamata*, y *Vittadinia sulcata* (nativa de Australia). *Calotis cuneifolia* (nativa de Australia) se cita para Norte América por segunda vez. Cincuenta y nueve (59) de los 73 taxa no son nativos de Carolina del Sur; de estos, 29 son nativos de otros continentes diferentes de Norte América, mientras que 30 son nativos de Norte América pero de regiones fuera del estado.

In the years 1957 through 1960, as part of the Flora of the Carolinas project and working from the University of North Carolina-Chapel Hill herbarium, Harry Ahles and companion John Haesloop made repeated collecting trips to two 'wool combing mills' in South Carolina. One of these was in Jamestown in Berkeley Co., the other north of Johnsonville in Florence Co.; both sites are located on the coastal plain, 40–50 kilometers from the coast and about 60 kilometers from each other. Some of the collections were identified and incorporated into the general collections at NCU several decades ago; others were mounted but were not identified or inserted into the general collections until 2001. Only a few of these were included in the account of the Flora of the Carolinas (Radford et al. 1968). Some have been the basis of recent reports (without documentation) for distribution records (Kartesz 1999 and others).

The wool combing mills received raw fleece and processed it toward production of clean wool for spinning. Early stages in the process are mechanical shaking (removes dirt and some plant matter), "scouring" (removes chemical substances and sand), and "combing" (removes finer plant material as well as shorter, weaker fibers). Waste from these processes at the South Carolina mills was the source of propagules for species collected by Ahles and Haesloop. Delivery of the raw wool probably was by railroad, because both of the sites are along the CSX Railroad, which runs roughly parallel to the coast. Both mills apparently are still in operation.

Seventy-three taxa (73) of Asteraceae in 54 genera are represented in the collections identified here. Twenty-eight (28) of these are first reports for the flora of South Carolina; seventeen (17) others represent the first documentation for earlier reports for the state. Six (6) are first reports for North America: *Chevreulia sarmentosa*, *Gamochaeta argentina*, and *Panphalea heterophylla* are native to South America; *Peripleura arida*, *Stuartina hamata*, and *Vittadinia sulcata* are native to Australia. *Calotis cuneifolia* (native to Australia) is reported for North America for the second time. Fifty-nine (59) of the species are not native to South Carolina; of these, 29 are native to continents other than North America, while 30 are native to North America but from regions outside of the state.

It would be useful to reinvestigate the status of these taxa in South Carolina, in order to determine which have persisted or increased their distribution. A number of the taxa reported here may have the potential to spread and become damaging weeds, or they may simply be waifs (sensu Nesom 2000).

Collections by Ahles and Haesloop were made in 1957 (April, May, July, September, October), 1958 (April, May, June, July, September), 1959 (May, July), and 1960 (May, July). From each of the two wool mill sites, collections were provided with essentially the same label data, except for the collection number and date.

**SOUTH CAROLINA. Berkeley Co.:** waste ground around Santee Wool Combing Mill, Jamestown on S.C. Rte. 45, [Apr–Oct 1957–1960], H.E. Ahles [collection number] with J.G. Haesloop.

**SOUTH CAROLINA. Florence Co.:** waste ground around the Wellman Wool Combing Mill, north of Johnsonville on S.C. Rte. 41, [Apr–Oct 1957–1960], H.E. Ahles [collection number] with J.G. Haesloop.

#### PLANT LIST

The genera and species are arranged alphabetically. If more than one collection was made for a single species, the citations are arranged chronologically. Vouchers are located at NCU, unless otherwise indicated.

***Achillea millefolium* L.**

Berkeley Co.: 13 Jun 1958, Ahles 42939

Berkeley Co.: 27 May 1959, Ahles 52717

Native to western Asia, widely naturalized in the

U.S.A.; previously known from South Carolina (Radford et al. 1968).

***Amblyolepis setigera* DC.**

Berkeley Co.: 8 Apr 1957, Ahles 22614

Native to Texas and Mexico; first report for South Carolina.

**Ambrosia artemisiifolia** L.

Berkeley Co.: 27 May 1959, *Ahles* 52805

Native to North America and widely distributed; previously known from South Carolina (Radford et al. 1968).

**Amphiachyris dracunculoides** (DC.) Nutt.

Berkeley Co.: 28 Sep 1957, *Ahles* 35585

Berkeley Co.: 30 Oct 1957, *Ahles* 38195

Berkeley Co.: 22 Sep 1958, *Ahles* 49216

Native to the south-central U.S.A. as far east as Alabama and Tennessee; reported for South Carolina by Kartesz (1999), documented here.

**Anthemis cotula** L.

Berkeley Co.: 20 May 1957, *Ahles* 25827

Florence Co.: 28 May 1957, *Ahles* 26690

Berkeley Co.: 27 May 1959, *Ahles* 52797

Florence Co.: 11 Jul 1960, *Ahles* 53756

Native to Europe and Asia, widely naturalized in the U.S.A.; previously known from South Carolina (Radford et al. 1968).

**Arctium minus** Bernh.

Berkeley Co.: 11 Jul 1960, *Ahles* 53824

Native to Europe, widely naturalized in the U.S.A.; previously known from South Carolina (Radford et al. 1968).

**Artemisia annua** L.

Berkeley Co.: 11 Jul 1960, *Ahles* 53848

Native to eastern Europe and Asia, naturalized in various states of the USA; first report for South Carolina.

**Artemisia biennis** Willd. var. **biennis**

Berkeley Co.: 20 May 1957, *Ahles* 25897

Berkeley Co.: 27 May 1959, *Ahles* 52762

Berkeley Co.: 11 Jul 1960, *Ahles* 53814

Native to western and northern U.S.A. and Canada; first report for South Carolina.

**Artemisia vulgaris** L. var. **vulgaris**

Berkeley Co.: 25 May 1960, *Ahles* 53402

Berkeley Co.: 25 May 1960, *Ahles* 53403

Native to Europe and Asia, widely naturalized in Canada and the eastern U.S.A.; previously known from South Carolina (Radford et al. 1968).

**Bidens bipinnata** L.

Berkeley Co.: 20 May 1957, *Ahles* 25836 (NCU, SMU)

Berkeley Co.: 14 May 1958, *Ahles* 40488

Native to the southern and eastern U.S.A. and Mexico; previously known from South Carolina (Radford et al. 1968).

**Bidens pilosa** L.

Florence Co.: 14 May 1958 *Ahles* 40446

Florence Co.: 30 Oct 1957, *Ahles* 38153

Florence Co.: 28 May 1957, *Ahles* 26699

Florence Co.: 22 Sep 1958, *Ahles* 49139

Native to Mexico and Central America, naturalized in the southwestern and southeastern U.S.A. and a few other states; previously known from South Carolina (Radford et al. 1968).

**Bidens polylepis** Blake

Berkeley Co.: 5 Jul 1957, *Ahles* 30809

Native to the eastern U.S.A.; previously known from South Carolina (Radford et al. 1968).

**Bidens frondosa** L.

Berkeley Co.: 22 Sep 1958, *Ahles* 49204

Native and widespread in North America; previously known from South Carolina (Radford et al. 1968).

**Calotis cuneifolia** R. Br.

Berkeley Co.: 8 Apr 1957, *Ahles* 22537

Berkeley Co.: 14 May 1958, *Ahles* 40564

Berkeley Co.: 13 Jun 1958, *Ahles* 42935, 42973

Native to Australia, reported in the U.S.A. only for Massachusetts (Sorrie 1992); first report for South Carolina.

**Carduus pycnocephalus** L.

Berkeley Co.: 8 Apr 1957, *Ahles* 22550

Native to northern Africa and western Asia, naturalized in scattered states of western and Gulf coast U.S.A.; reported for South Carolina by Kartesz (1999), documented here.

**Carthamus baticus** (Boiss. & Reut.) Lara (syn. = *Carthamus lanatus* L. subsp. *baticus* (Boiss. & Reut.) Nyman

Berkeley Co.: 13 Jun 1958, *Ahles* 42899

Berkeley Co.: 27 May 1959, *Ahles* 52774 (det. D.J. Keil 1997)

Berkeley Co.: 27 May 1959, *Ahles* 52854

Berkeley Co.: 25 May 1960, *Ahles* 53372

Native to southern Europe and northern Africa,

naturalized in scattered states, mostly along the Pacific coast; reported for South Carolina by Kartesz (1999), documented here.

***Centaurea americana*** Nutt

Berkeley Co.: 27 May 1959, *Ahles* 52776

Berkeley Co.: 27 May 1959, *Ahles* 52843

Berkeley Co.: 25 May 1960, *Ahles* 53492

Native primarily to the central U.S.A.; reported for South Carolina by Kartesz (1999), documented here.

***Centaurea melitensis*** L.

Berkeley Co.: 8 Apr 1957, *Ahles* 22624

Berkeley Co.: 14 May 1958, *Ahles* 40542 (det. L. Shinnors)

Berkeley Co.: 13 Jun 1958, *Ahles* 42919

Native to southern Europe and northern Africa, naturalized in the western U.S.A. and various other states; reported for South Carolina by Cronquist (1980), documented here.

***Centaurea solstitialis*** L.

Berkeley Co.: 25 May 1960, *Ahles* 53487

Berkeley Co.: 11 Jul 1960, *Ahles* 53846 (det. L. Shinnors)

Native to western Asia and the Mediterranean region of Europe, naturalized and weedy in most of the U.S.A.; reported for South Carolina by Hill and Horn (1997).

***Chaetopappa asteroides*** (Nutt.) DC. var. *asteroides*

Berkeley Co.: 8 Apr 1957, *Ahles* 22551

Native to northern Mexico and the south-central U.S.A.; first report for South Carolina.

***Chevreulia sarmentosa*** (Pers.) Blake

Berkeley Co.: 14 May 1958, *Ahles* 40509

Native to South America (Brazil, Paraguay, Uruguay, Bolivia, Argentina); first report for the U.S.A. and South Carolina.

***Conyza bonariensis*** (L.) Cronq.

Berkeley Co.: 14 May 1958, *Ahles* 40568

Berkeley Co.: 21 Jul 1958, *Ahles* 46996

Native to South America, naturalized in most southern states of the U.S.A.; previously known from South Carolina (Radford et al. 1968).

***Coreopsis tinctoria*** Nutt. var. *tinctoria*

Berkeley Co.: 27 May 1959, *Ahles* 52825

Berkeley Co.: 11 Jul 1960, *Ahles* 53822

Native and widespread in North America; previously known from South Carolina (Radford et al. 1968).

***Coreopsis verticillata*** L.

Berkeley Co.: 13 Jun 1958, *Ahles* 42900

Native to the southern U.S.A.; previously known from South Carolina (Radford et al. 1968).

***Cotula australis*** (Sieber) Hook f.

Berkeley Co.: 8 Apr 1957, *Ahles* 22592

Native to Australia and New Zealand; naturalized in various western U.S.A. states and Florida; first report for South Carolina.

***Dittrichia graveolens*** (L.) W. Greuter

Berkeley Co.: 28 Sep 1957, *Ahles* 35595

Native to the Mediterranean region, naturalized in various regions, including Australia, New Zealand, and California (Preston 1997), and reported from various other localities in the U.S.A. (Gleason & Cronquist 1991; Mitchell & Tucker 1997; Preston 1997; Tucker 1995); first report for South Carolina. In view of the other species reported here from Australia, it seems likely that the wool mill plants of *Dittrichia graveolens* also originated from there rather than from the native region of the species.

***Dracopis amplexicaulis*** (Vahl) Cass.

Berkeley Co.: 20 May 1957, *Ahles* 25840

Berkeley Co.: 25 May 1960, *Ahles* 53369

Native primarily to the south-central U.S.A.; reported for South Carolina by Kartesz (1999), documented here.

***Dyssodia papposa*** (Vent.) A.S. Hitchc.

Berkeley Co.: 8 Apr 1957, *Ahles* 22620

Berkeley Co.: 20 May 1957, *Ahles* 25892

Berkeley Co.: 14 May 1958, *Ahles* 40483

Berkeley Co.: 14 May 1958, *Ahles* 40553

Native to the southwestern and central U.S.A.; first report for South Carolina.

***Eupatorium dubium*** Willd.

Berkeley Co.: 15 Jul 1959, *Ahles* 52950

Native to Atlantic coast states of the U.S.A., from South Carolina northward; previously known from South Carolina (Radford et al. 1968).

***Evax multicaulis*** DC.

Berkeley Co.: 8 Apr 1957, *Ahles* 22591

Berkeley Co.: 14 May 1958, *Ahles* 40511

Native to Mexico and various states of the southern U.S.A.; reported for South Carolina by Cronquist (1980), documented here.

***Evax prolifera*** Nutt. ex DC.

Berkeley Co.: 14 May 1958, *Ahles* 40512, 40513

Berkeley Co.: 27 May 1959, *Ahles* 52737

Native to Mexico and various states of the Great Plains and southern U.S.A.; first report for South Carolina.

***Facelis retusa*** (Lam.) Schultz-Bip.

Berkeley Co.: 27 May 1959, *Ahles* 52731

Berkeley Co.: 27 May 1959, *Ahles* 52858

Native to South America and naturalized in states of the Gulf coast and southern Atlantic coast; previously known from South Carolina (Radford et al. 1968).

***Flaveria trinervia*** (Spreng.) Mohr

Berkeley Co.: 28 Sep 1957, *Ahles* 35584

Berkeley Co.: 21 Jul 1958, *Ahles* 47035

Berkeley Co.: 22 Sep 1958, *Ahles* 49172

Berkeley Co.: 22 Sep 1958, *Ahles* 49215

Native to northwestern Mexico and the southwestern United States, naturalized in a few states of eastern U.S.A.; first report for South Carolina.

***Gaillardia pulchella*** Foug. var. *drummondii* (Hook.) B.L. Turner

Berkeley Co.: 8 Apr 1957, *Ahles* 22528

Berkeley Co.: 20 May 1957, *Ahles* 25852

Berkeley Co.: 14 May 1958, *Ahles* 40460

Berkeley Co.: 13 Jun 1958, *Ahles* 42902

Berkeley Co.: 13 Jun 1958, *Ahles* 42950

Berkeley Co.: 13 Jun 1958, *Ahles* 42969

Berkeley Co.: 25 May 1960, *Ahles* 53367

Native primarily to the south-central U.S.A. but naturalized in various other states; reported for South Carolina by Kartesz (1999), documented here. The collections were determined by annotation as var. *drummondii* by B.L. Turner & T.J. Watson in 1995.

***Gamochaeta antillana*** (Urb.) Anderb.

Berkeley Co.: 8 Apr 1957, *Ahles* 22529

Florence Co.: 8 Apr 1957, *Ahles* 22628

Probably native to the Caribbean region and perhaps South America, perhaps southeastern USA; first recognized by this name and circumscription in the U.S.A. by Nesom (2004).

***Gamochaeta argentina*** Cabr.

Berkeley Co.: 8 Apr 1957, *Ahles* 22594

Native to South America (Argentina and Uruguay); first report for the U.S.A. and South Carolina.

***Gamochaeta calviceps*** (Fern.) Cabr.

Berkeley Co.: 27 May 1959, *Ahles* 52842

Perhaps native to the southeastern USA, apparently naturalized worldwide; recognized by this name and circumscription in the U.S.A. by Nesom (2004).

***Gamochaeta pensylvanica*** (Willd.) Cabr.

Berkeley Co.: 8 Apr 1957, *Ahles* 22590

Probably native to South America (Nesom 2004), naturalized in the southern U.S.A. and throughout the world; previously known from South Carolina (Radford et al. 1968).

***Gamochaeta simplicicaulis*** (Willd. ex Spreng.) Cabr.

Berkeley Co.: 5 Jul 1957, *Ahles* 30825

Berkeley Co.: 21 Jul 1958, *Ahles* 47038

Berkeley Co.: 15 Jul 1959, *Ahles* 52959

Berkeley Co.: 11 Jul 1960, *Ahles* 53783

Native to South America, naturalized in a few states of Atlantic gulf coast U.S.A.; previously known from South Carolina, first reported by Nesom (1999).

***Grindelia lanceolata*** Nutt. var. *lanceolata*

Berkeley Co.: 13 Jun 1958, *Ahles* 42920

Native to the south-central U.S.A.; first report for South Carolina. The plant is sterile, but the identification is probably correct. The plant has relatively broad leaves like plants from east Texas.

***Gutierrezia sarothrae*** (Pursh) Britt. & Rusby

Berkeley Co.: 28 Sep 1957, *Ahles* 35269

Native to Mexico and the western U.S.A.; first report for South Carolina.

***Gutierrezia texana*** (DC.) Torr. & A. Gray var. *texana*

Berkeley Co.: 11 Jul 1960, *Ahles* 53821

Berkeley Co.: 22 Sep 1958, *Ahles* 49193

Native to Mexico and Texas, naturalized or possibly native in a few other states of central U.S.A.; first report for South Carolina.

***Helenium amarum*** (Raf.) H. Rock var. *badium* (A. Gray ex S. Wats.) Waterfall

Berkeley Co.: 20 May 1957, *Ahles* 25829

Berkeley Co.: 20 May 1957, *Ahles* 25834

Berkeley Co.: 14 May 1958, *Ahles* 40478

Berkeley Co.: 13 Jun 1958, *Ahles* 42936

Berkeley Co.: 27 May 1959, *Ahles* 52727

Native to Texas and Oklahoma; reported for South Carolina by Kartesz (1999), documented here.

***Helenium elegans* DC. var. *elegans***

Berkeley Co.: 25 May 1960, *Ahles* 53357

Native to Texas, Oklahoma, and Louisiana; reported for South Carolina by Kartesz (1999), documented here.

***Helenium microcephalum* DC. var. *microcephalum***

Berkeley Co.: 20 May 1957, *Ahles* 25844 (NCU, SMU)

Berkeley Co.: 5 Jul 1957, *Ahles* 30803

Berkeley Co.: 21 Jul 1958, *Ahles* 47002

Berkeley Co.: 27 May 1959, *Ahles* 52719

Berkeley Co.: 25 May 1960, *Ahles* 53405

Florence Co.: 26 May 1960, *Ahles* 53560

Florence Co.: 11 Jul 1960, *Ahles* 53750 (NCU, SMU)

Berkeley Co.: 11 Jul 1960, *Ahles* 53816

Native to Texas, Oklahoma, New Mexico, and Colorado; reported for South Carolina by Kartesz (1999), documented here.

***Helianthus annuus* L.**

Berkeley Co.: 20 May 1957, *Ahles* 25862

Berkeley Co.: 13 Jun 1958, *Ahles* 42987

Florence Co.: 22 Sep 1958, *Ahles* 49145

Berkeley Co.: 27 May 1959, *Ahles* 52777

Berkeley Co.: 25 May 1960, *Ahles* 53456

Berkeley Co.: 11 Jul 1960, *Ahles* 53770

Berkeley Co.: 11 Jul 1960, *Ahles* 53820

Native or naturalized across the entire U.S.A.; previously known from South Carolina (Radford et al. 1968).

***Heliomeris multiflora* (Nutt.) Blake var. *multiflora* (syn = *Viguiera multiflora* (Nutt.) Blake)**

Berkeley Co.: 14 May 1958, *Ahles* 40541

Berkeley Co.: 27 May 1959, *Ahles* 52778

Native to the western USA and Mexico; first report for South Carolina.

***Hymenoxys odorata* DC**

Berkeley Co.: 8 Apr 1957, *Ahles* 22512

Berkeley Co.: 8 Apr 1957, *Ahles* 22603

Native to the southwestern U.S.A.; first report for South Carolina.

***Hypochaeris brasiliensis* (Less.) Griseb. var. *tweedei* (Hook. & Arn.) Baker**

Berkeley Co.: 8 Apr 1957, *Ahles* 22623

Berkeley Co.: 28 Sep 1957, *Ahles* 35593

Berkeley Co.: 27 May 1959, *Ahles* 52730

Native to South America, naturalized in states along the Gulf coast and southern Atlantic; previously known from South Carolina, first reported by Shinnars (1966) from a wool mill collection.

***Hypochaeris glabra* L.**

Berkeley Co.: 14 May 1958, *Ahles* 40469

Berkeley Co.: 13 Jun 1958, *Ahles* 42954

Berkeley Co.: 27 May 1959, *Ahles* 52738

Native to South America, naturalized in states along the Gulf coast and southern Atlantic and various others; previously known from South Carolina (Radford et al. 1968).

***Iva annua* L.**

Berkeley Co.: 28 Sep 1957, *Ahles* 35606

Berkeley Co.: 30 Oct 1957, *Ahles* 38194

Probably native to the central and eastern U.S.A.; previously known from South Carolina (Anonymous 1997), documented here.

***Iva axillaris* Pursh**

Berkeley Co.: 13 Jun 1958, *Ahles* 42961

Native to western North America; first report for South Carolina.

***Iva xanthifolia* Nutt.**

Berkeley Co.: 14 May 1958, *Ahles* 40531

Berkeley Co.: 27 May 1959, *Ahles* 52803

Native to most states of the U.S.A. except the Southeast; first report for South Carolina.

***Krigia virginica* (L.) Willd.**

Berkeley Co.: 8 Apr 1957, *Ahles* 22627

Florence Co.: 8 Apr 1957, *Ahles* 22546

Florence Co.: 9 Apr 1958, *Ahles* 38274

Native to the eastern U.S.A.; previously known from South Carolina (Radford et al. 1968).

***Lactuca graminifolia* Michx.**

Berkeley Co.: 13 Jun 1958, *Ahles* 42968

Native to coastal states of the southeastern U.S.A.; previously known from South Carolina (Radford et al. 1968).

**Panphalea heterophylla** Less. (identification by John Pruski)

Berkeley Co.: 8 Apr 1957, *Ahles* 22585

Native to South America (Brazil, Uruguay, Argentina); first report for the U.S.A. and South Carolina (Pruski & Nesom 2004).

**Parthenium hysterophorus** L.

Berkeley Co.: 20 May 1957, *Ahles* 25850

Berkeley Co.: 5 Jul 1957, *Ahles* 30810

Berkeley Co.: 22 Sep 1958, *Ahles* 49161

Berkeley Co.: 15 Jul 1959, *Ahles* 52960

Apparently native to the West Indies and adjacent North America and South America, naturalized in various states of south-central U.S.A. and elsewhere; first report for South Carolina.

**Peripleura arida** (Burbidge) Nesom (syn = *Vittadinia arida* Burbidge)

Berkeley Co.: 14 May 1958, *Ahles* 40547

Native to Australia; first report for the U.S.A. and South Carolina.

**Pseudognaphalium stramineum** (Kunth) Anderb.

Berkeley Co.: 11 Jul 1960, *Ahles* 53825

Native to Mexico and the western U.S.A., naturalized in Virginia, North Carolina, and South Carolina; previously known from South Carolina (Radford et al. 1968).

**Ratibida columnifera** (Nutt.) Woot. & Standl.

Berkeley Co.: 20 May 1957, *Ahles* 25830

Berkeley Co.: 14 May 1958, *Ahles* 40468

Berkeley Co.: 27 May 1959, *Ahles* 52712

Berkeley Co.: 27 May 1959, *Ahles* 52801

Berkeley Co.: 27 May 1959, *Ahles* 52860

Berkeley Co.: 25 May 1960, *Ahles* 53370

Berkeley Co.: 25 May 1960, *Ahles* 53371

Berkeley Co.: 25 May 1960, *Ahles* 53491

Florence Co.: 11 Jul 1960, *Ahles* 53753

Native to Mexico and the central U.S.A., widely naturalized; reported for South Carolina by Kartesz (1999), documented here.

**Rudbeckia hirta** L. var. **angustifolia** (T.V. Moore) Perdue

Berkeley Co.: 20 May 1957, *Ahles* 25863

Berkeley Co.: 13 Jun 1958, *Ahles* 42916

Berkeley Co.: 27 May 1959, *Ahles* 52830

Native to the coastal states of southeastern

U.S.A.; previously known from South Carolina (Anonymous 1997), documented here.

**Soliva sessilis** Ruiz & Pavon (syn = *Soliva pterosperma* (Juss.) Less.)

Berkeley Co.: 27 May 1959, *Ahles* 52718

Native to South America, naturalized in the southeastern U.S.A.; previously known from South Carolina (Radford et al. 1968).

**Sonchus oleraceus** L.

Berkeley Co.: 8 Apr 1957, *Ahles* 22615

Native to Europe, northern and western Asia, and northern Africa, widely naturalized in North America; previously known from South Carolina (Radford et al. 1968).

**Stuartina hamata** Philipson

Berkeley Co.: 8 Apr 1957, *Ahles* 22593

Native to Australia; first report for the U.S.A. and South Carolina.

**Symphytotrichum divaricatum** (Nutt.) Nesom (syn = *Aster subulatus* Michx. var. *ligulatus* Shinnery)

Berkeley Co.: 30 Oct 1957, *Ahles* 38169

Native to northern Mexico and the south-central U.S.A.; first report for South Carolina.

**Tagetes minuta** L.

Berkeley Co.: 20 May 1957, *Ahles* 25845

Berkeley Co.: 28 Sep 1957, *Ahles* 35609

Berkeley Co.: 22 Sep 1958, *Ahles* 49188

Native to South America, in the U.S.A. naturalized mainly in Atlantic coastal states; previously known from South Carolina (Radford et al. 1968).

**Tetrameuris linearifolia** (Hook.) Greene var. **linearifolia** (syn = *Hymenoxys linearifolia* Hook.)

Berkeley Co.: 8 Apr 1957, *Ahles* 22513

Native to Texas, New Mexico, Oklahoma, and Kansas; first report for South Carolina.

**Thymophylla tenuiloba** (DC.) Small var. **tenuiloba** (syn = *Dyssodia tenuiloba* (DC.) B.L. Robins. var. *tenuiloba*)

Berkeley Co.: 8 Apr 1957, *Ahles* 22580

Native to Mexico and Texas, naturalized in a few Gulf coast states (e.g. Florida and Mississippi, Cronquist 1980; Alabama, Lelong 1988); first report for South Carolina.

**Uropappus lindleyi** (DC.) Nutt.

Florence Co.: 26 May 1960, *Ahles* 53543

Native to the southwestern U.S.A.; first report for South Carolina.

**Verbesina encelioides** (Cav.) var. **encelioides**

Berkeley Co.: 20 May 1957, *Ahles* 25548

Florence Co.: 28 May 1957, *Ahles* 26719

Berkeley Co.: 5 Jul 1957, *Ahles* 30812

Berkeley Co.: 14 May 1958, *Ahles* 40486, 40554

Florence Co.: 21 Jul 1958, *Ahles* 46950

Berkeley Co.: 22 Sep 1958, *Ahles* 49180

Berkeley Co.: 27 May 1959, *Ahles* 52810

Berkeley Co.: 15 Jul 1959, *Ahles* 52945

Florence Co.: 26 May 1960, *Ahles* 53546

Florence Co.: 11 Jul 1960, *Ahles* 53762

Native to Mexico and the western U.S.A., naturalized in several states of the southeastern U.S.A.; previously known from South Carolina, reported by Coleman (1974), documented here.

**Vittadinia sulcata** N. Burbidge

Berkeley Co.: 8 Apr 1957, *Ahles* 22538

Native to Australia; first report for the U.S.A. and South Carolina.

**Xanthium spinosum** L.

Berkeley Co.: 8 Apr 1957, *Ahles* 22608

Berkeley Co.: 20 May 1957, *Ahles* 25872

Florence Co.: 28 May 1957, *Ahles* 26689

Berkeley Co.: 30 Oct 1957, *Ahles* 38199

Berkeley Co.: 13 Jun 1958, *Ahles* 42924

Native to South America, widely naturalized in North America; reported for South Carolina by Kartesz (1999), documented here.

**Xanthium strumarium** L. var. **canadense** (P. Miller) Torr. & A. Gray

Berkeley Co.: 5 Jul 1957, *Ahles* 30848

Native to North America and widely distributed as a weed; previously known from South Carolina (Radford et al. 1968).

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